

In latest designs for marine work further development has taken place in gearing. Double reduction gearing has been successfully adopted in preference to the original single gearing. Fig. 49 shows the arrangements of double-reduction gearing aboard ship.

For the mercantile vessel future development appears to be along the line of the adoption of double-reduction gearing. This is one of the most striking features in the progress of marine engineering. It permits of a greater ratio between turbine speed and propeller speed without excessive

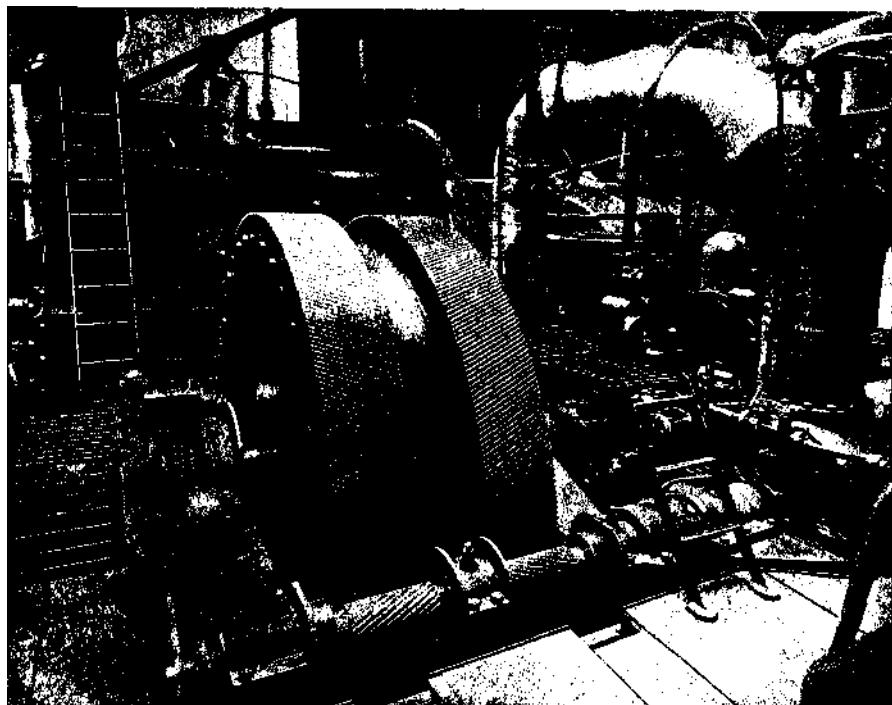


Fig. 48.—S.S. *Vespasian* Engine-room,  
showing Gearing with Cover Removed

gear-wheel diameter, and even in slow-speed vessels turbine and propeller can each run at their most efficient speed. It has enabled marine turbine designers to follow land practice more closely than was hitherto the case.

The development of impulse marine turbines is of later date than that of the reaction type, but has made considerable progress during the last few years, especially in conjunction with gear drives.

As an example of a typical high-speed impulse turbine adapted for ship propulsion, a brief description of that made by Messrs. The Metropolitan-

Vickers Company is given.

During the war period many of the so-called standard ships were fitted with these turbines.

The high- and low-pressure turbines are arranged side by side, each driving a high-speed pinion.